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HYPSELOSTOMA LATISPIRA, A NEW PUPILLID LAND SNAIL FROM THE PHILIPPINE ISLANDS

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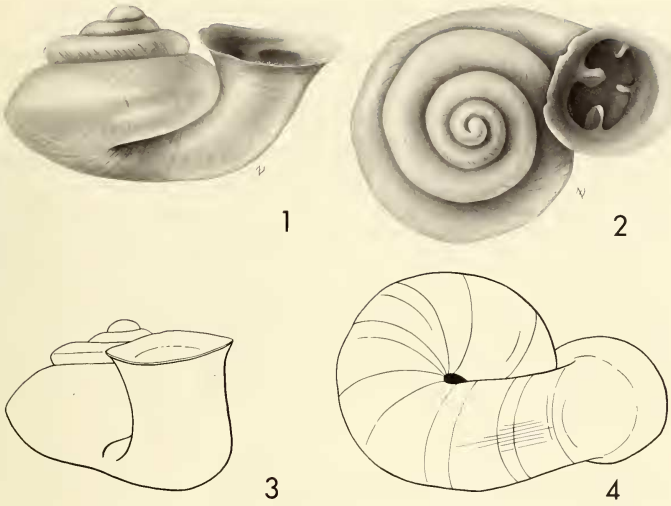
Abstract.—*Hypselostoma latispira*, new species (Gastropoda: Pulmonata, Pupillidae) is described from Luzon Island. It is most closely related to *H. roebeleni* Moellendorff from Coron Island. The Philippine species of *Hypselostoma* appear to be monophyletic and closely related to the type species, *H. tubiferum* (Benson), from the Malay Peninsula.

The genus *Hypselostoma* Benson, 1856, is widely deployed from Burma and the Malayan peninsula eastward to Vietnam, the Ryukyu Islands, and the Philippine Islands. The genus was monographed by Pilsbry (1917). Haas (1937), Tomlin (1939), and Benthem Jutting (1949, 1950, 1962) described additional species and subspecies. Von Moellendorff (1888), Quadras and von Moellendorff (1894, 1896), Pilsbry (1917), and Haas (1937) discuss the Philippine fauna.

Hypselostoma has a reduced aperture barrier, derived from a more generalized state, such as occurs in *Gyliotrachela* Tomlin, 1930 (see Solem 1981). In *Hypselostoma* the angular lamella and the parietal lamella are fused into a single sinuous tooth. In this respect the aperture barrier is similar to that of *Boysidia* Ancey, 1881. *Hypselostoma* differs from *Boysidia* by having the aperture projecting free from the last whorl and by having spiral sculpture. *Boysidia* has an adnate aperture and lacks spiral sculpture (Thompson and Dance 1983). *Hypselostoma*-type shells could have been derived from both *Gyliotrachela*-type and *Boysidia*-type ancestors. Considering the diverse assortment of shells classified as *Hypselostoma*, it is apparent that the genus as presently conceived is polyphyletic. The Philippine species are conchologically very similar. Apparently they are a monophyletic group, which appears to be closely related to the type-species, *H. tubiferum* Benson, 1856, from the Malayan Peninsula. This relationship is presumed on the basis of similar shell shapes and aperture barriers.

Hypselostoma latispira, new species
Figs. 1–4

Description.—Shell medium-sized for genus, 4.2–4.4 mm wide. Brown with white peristome. Depressed-conical in shape; about 0.51–0.56 times as high as wide. Whorls 4.3. Spire very depressed; first 4 whorls rapidly expanding laterally to form wide cone of about 90° (Fig. 1). Body whorl becomes more ventral in position so that penultimate whorl is scalariform (Figs. 1, 3). Last whorl projecting strongly to side and upward above periphery with plane of aperture lying at 15–30° to the horizontal axis. Minor diameter of shell 0.67–0.71 times major diameter. Base of last whorl obtusely convex. Umbilicus (Fig. 4) narrowly perforate or rimate with sides of umbilical wall evenly rounded onto base, not forming an obtuse angle. Last whorl angulate at periphery; usually not furrowed above or below (2 paratypes have very weak supraperipheral furrow). Sculpture consisting of low



Figs. 1–4. *Hypselostoma latispira,* holotype.

irregularly spaced growth striations and wrinkles that give surface fine, undulating appearance. Base of last whorl with fine longitudinal striations which are most prominent on last half of whorl. Peristome widely expanded; broadly triangular and nearly rounded in shape. Aperture slightly constricted in area of upper palatal plica. Internal barrier consisting of 4 teeth deeply inserted within aperture forming a cross-like configuration. Parietal lamella largest, about as high as wide, weakly sinuous and slightly arched toward upper palatal plica, forming rounded sinus in upper right corner and triangular sinus in upper left. Columellar lamella about as long as parietal lamella but about half as high. Upper palatal and lower palatal plica about equal-sized, small, and tubercular.

Measurements in mm of five specimens follow. Ratios are calculated from ocular micrometer units and not from converted mm measurements.

	Length	Major width	Lesser width	Aperture width	Length/maj. width	Les. width/maj. width
Holotype	2.3	4.5	2.9	1.7	0.51	0.65
Paratype	2.3	4.2	2.8	—	0.55	0.67
Paratype	2.4	4.2	3.0	1.8	0.56	0.71
Paratype	2.2	4.4	3.0	1.7	0.51	0.68
Paratype	2.4	4.4	3.0	1.9	0.54	0.68

Type-locality.—Philippine Islands, Luzon Island, Benguet Province, Baguio City (16°25′N, 120°37′E). HOLOTYPE: UF 39912; collected 16 Jun 1981 by Kurt

Auffenberg. PARATYPE: UF 39913 (4); same data as holotype. Non-paratypic specimens are UF 39914 (3); preserved in 70% alcohol. Specimens were found in the late morning during a rainstorm while they were crawling on damp algae covering huge limestone boulders approximately 10 m in diameter. The boulders were in an abandoned limestone quarry cut into a hillside. The area is forested with *Pinus* sp. Choyote, *Sechium edule,* formed a ground cover in the area of the quarry, but was not on the limestone boulders.

Remarks.—Seven other species of *Hypselostoma* occur in the Philippine Islands (Pilsbry 1917:183–188; Haas 1937:5–7). Five are monotypic. *Hypselostoma polyodon* Moellendorff, 1896 has two subspecies, and *H. luzonicum* Moellendorff, 1888 has five. The following two taxa are known from Luzon Island: *H. l. luzonicum* Moellendorff, 1888 and *H. l. major* Moellendorff, 1890. Both differ conspicuously from *H. latispira* by having high conical shells in which the height is about equal to the major width, and by having three palatal plica. *Hypselostoma latispira* is most similar in shape to *H. roebeleni* Moellendorff, 1894 from Coron Island in the Calamianes group. *Hypselostoma roebeleni* differs from *H. latispira* by having a broad umbilical perforation, which is about one-fourth the lesser width of the shell, and by having a strong peripheral keel, which is accentuated above by a deeply impressed furrow extending nearly to the peristome and a similar but weaker furrow below.

Etymology.—The species name *latispira* is derived from the Latin *latus,* meaning broad, and *spira,* a coil. The name alludes to the low, wide spire that characterizes the species, and is a noun in apposition.

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